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1 (insert in 1509)
zur Megedelj, Chen,M.C., Doe,B., Schaefer,M., Greer,C.E.,
Selby,M., Orton,R. and Barnett,S.W.
Increased expression and inhumovenicity of sequence modified human
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zur Megede,J. and Barnett,S.W.
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Location/Qualifiers
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Submitted (12-JUL-2000) Chemical Pathology, Women's and Children's
Hospital, 72 King William Koad, North Adelaide, SA 5006, Australia
[Location/Qualifiers
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Zorganism "synthetic construct"
24 yr.: "Faxon 326 kg"
Znole "derived from Homan immunodeliciency virus type 1
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Unpublished
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Fuller, M. and Anson, D.S.
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Fuller, M. and Anson, D.S.
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KALOPAATLEBMITANO VYZGROBEKANI JAKASŲVI NSALTIMMORŠNE PALEKTYN
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Submitted (12.JUL-2000) Chemical Patholody, Women's and Children's
Hospital, 72 King William Road, North Adelaide, SA 5006, Australia
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/hote "derived from Human immunodeficiency virus type l
isolate YU-2"
                                         1249 - eaccagat gaaaggast geaccgagegeeaggeeaust titest gygeaagat et ggeeerage - 1308
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/protein_id "AAG28787.1"
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Fuller,M. and Anson,D.S.
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Fuller, M. and Anson, D.S.
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                                    997. CLGCLGG PROBARAN SONAN AMOUNT SAN BANCA DO RESARBITO PRINCIPARIA DO 1056
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Patent: WO 0055341-A 2 21-SFP-2000;
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AX035453
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(bases 1 to 4307)
Uden, M. and Mitrophanous, K.
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1 (bases 1 to 4407)
Mitropharus,K., Kim,N.H. and Kotsopenlon,E.
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Mitrophanous,K., Kingsman,A.J. and Kim,N.
Anti-viral vectors
Patent: WC 994127-A 2 19-AUG-1999;
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SUMMARIES

	Description	HIV synthetic Gag	HIV codon-optimize	HIV synthetic Gag	HIV codon-optimize	BIV 1 subtype (C/B	Synthetic HIV Gag	HIV bicistronic co	HIV bicistronic co	HIV bicistronic co
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AAA70470	AAA20415	AA162900	AA167899	AAA70413	AAA70475	AAA70476	AAA70414	AA167896	AA167897	AA167898	AA252051	AA252055	AAA7 04 17	AAF31283	AAV45173	AA208740	AAA9 4972	AAC86876	AAB4 4696	AAA9 1984	AAA9 398 3	AAA9 4982	AAH4 1699	AAF 41286	AAB22806	AAH22810	AAF57929	AAD25521	AAF57926	AMI TOTAL	AAR 1. July	አለዘ, ***	AAHLUBIG	AA1066.45	AAfrikud su
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31 SC: LUOU (farst catry)

HIV synthetic Gaq polynocleotide.

dat, expression, asserte, antipenia, typos, HTV, Enc, synthetics DBA immunication, packaging cell line; antiqen presentation, ss.

Ruman immunodeficiency virus type C strain AF110965 synthetic.

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/*tag a /*product synthetic_dag //product Synthetic_dag //product %Codon usage pattern was modified and inhibitory clements (INS) and RKE sites were inactivated resulting in improved expression"

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production of Gag- and/or Envicontaining proteins. Synthetic Env and Gag expression cossettes exhibit increased percent induction of cytoroxic T-lymphocyte (CTL) responses by DNA immunication. Gag of HIV-1 Self-assemble into non-infectious vitus-like particles which are used as a matrix for the proper presentation of an antigen entrapped or associated to the immune system of the host. Polymarked ids seconding antiquais type C 41V Gag polymeratide or a HIV Euv polymeptide and the polymeptide useful for immunizing a mammal especially human against HIV type C human immunisation, generation of packaging cell lines and useful in DNA immunization, generation of packaging cell lines and 61 etangeningginggnaaqaaqtgetanatgatgaagnanitygtggggggaggggag 120 [2] otggagaagttogonotgaannonggontgotggagaagagagagagagagagagaagaae 180 181 atengecagetgeacceegeeetgeagaeeggeagegaggagetgaagageetgtteaae 240 24] accetigecaccetitactignsfignangagaagathqaggtinegegaccaaggaggee 300 361 geogacaaggecaaggtydggecagaactammetentgeagaaetgaagggatg 420 361 genyamanggenanggigangenganetacedenteqiquanetgenganeetgenggqeenagit 420 421 gtycaccaggccathagnannaghannigan ghrigggigaaggtgathgggagaar 480 481 graftaagaarangagatgatacacatgttaacagaaatgagagagagagacaceeccag 540 481 grottragnorongaggigatororalytteacegecelgageggggggecacceccaq 540 541 ganntgaansinatgitgaanarijiggepenariugginginigenijenigeng 600 Gaps l atuggegeregegereageatentgegegeggeggeagetggargertgggagegteege 60 Expression cassettes comprising a polynucleotide encoding antigenie ctggacaagatcgaggaqqaqcagaacaagtgccagcagaagatccaqcaqqccgaggcc 301 ctugacaaqatcqaggaggagragaaraagfgrragragaagafrragcagggggggg 541 waketyaanangatgiigaananngigqogoksacaggosgesatgetgetgaaq 100.0%; Score 1479; DB 21; Length 1479; 100.0%, Pird M. 1 14-186. 0; 0; Indels Sequence 1479 RP: 325 A: 529 C: 463 C. 162 T, O athor, 0; Mismatches Claim 2; Page 92-93; 113pp; English. Barnett S, Zur Megede J; Best Local Similarity 100. Matches 1479; Conservative 2000-452401/39. (CHIR) CHIRON CORP P-PSDB: AAVG6943 type C buman Query Match å 3 ŝ 3 90 97 9 ŝ δ ä ó

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                                                      HIV synthetic Gag polynucleotide.
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are similarly useful as pharmaceutical and diagnostic agents. (T) are specific for intersuptype C/M' of HIV-1 so are useful in regions (particularly China and South-East Asia) where this subtype is provalent. The products of the invariant have antivital activity. This sequence represents a fragment of the HIV-1 genome described in the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This invention describes a novel polynucleotide isolated from human immunodeficiency viris type I s.Etype C.PF ahigh con be used for the induction of specific humoral and cellular immune responses. (I) and polypeptides (II) encoded by them, are useful in pharmaceuticals, vaccines and diagnostic agents, particularly for treatment or prevention of human immune deficiency virus-1 (HTV-1) infections, also for rational.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        design of test or therapoutic reagents, or gene therapy vectors. Polypeptides, especially and the disc. Specially directed against (1),
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                                                                                                                                                             infection; diagnosis; human; humoral immune response; antiviral;
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The present invention relates to synchetic HIV day and Env expression casselves. The Gay protein of HIV is needed for the assembly of virins-like particles in addition, the Gay protein is invented in many stages if the HIV like explore the invented is many stages in the particle release and early post-entry steps in viral replication. The expression dassettes may be used for the recombinant expression of HIV days and Env-pelypeptides which may then be used to vaccinate against HIV infection and acquired immunelines which may then be used to vaccinate against HIV infection and acquired immunelines which may then be used to vaccinate against HIV infection and acquired immuneline constructed in the generation of the sequence is a synthetic construct constructed in the generation of the bicknowled in that the coding sequences for Env and day are under the control of a single CMV promoter and between the two coding acquences an Internal Ribosome Entry Site (IRES) is present.
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The present invention relates to synthetic HIV day and the expression easiesters. The day protein at HIV is needed for the assembly of virus like particles. In addition, the day protein is invelved in many stages of the HIV life eyele, including assembly, virion maturation after particle release and early post-entry steps in Viral replication. The expression casesttes may be used for the recombinant expression of HIV Gag- and Env polypoplides which may then be used to vaccinate against HIV
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89:3%; Pred. No. 8.8e-150;
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The present invention relates to synthetic HIV Gag and Env expression cassettes. The Gag protein of HIV is needed for the assembly of virus-like particles. In addition, the Gag protein is involved in many stages of the HIV like the virus including assembly. This involved in many particle release and early post-entry steps in viral replication. The variable and Env-ence and Env-polypreptides which may then be used to vaccinate against HIV infection and acquired immunodeficiency syndrome (AIDS). The present expression assembles of the present invention. This construct is a synthetic construct of in the generation of the expression assembles of the present invention. This construct is bicistronic in that the coding sequences for Env and Gag are under the
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Selby M, Walker C;
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due containing polypoptide useful for vaccinating against BIV intections and acquired immunodeliciem γ syndrome (ADS)

Example to Pares 41 442; 94pp; English,

The prison's separate is a HIV Gag/Hepatitis C virus (BCV) core lusion condities separate. The Gag protein of HIV is needed for the assembly of struct like principles of the factor of the HIV is a protein in involved in Langestones of the HIV life explosion to the factor of the HIV life explosion of the privation relates to synthetic HIV Gag expression cassettes. The present involved on the latter the expression cassettes of the present invention. The expression cassettes of the expression cassettes of the expression cassettes of the representation and acquired invention and acquired involved.

Sespenden 2011 BP: 421 A, 707 C, 646 G, 257 L, 0 other,

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21-NOV-2001.

18-MAY-2000; 2000EP-0110623.

(GENE-) GENEART GMBH.

Wagner R. Graf M. Deml L. Bieler K:

Wagner R. Graf M. Deml L. Bieler K:

Why: 2002-043171/06.

Synthetic was and gaapol genes optimized for high level expression via codon optimization, for efficient generation of vector particle useful in gene delivery and for immuniting against discusses of retroviruses remained in the invention relates to synthetic gag and gaapol genes optimized for intention of vector particles as particles as being the invention relates to synthetic gag and gaapol genes optimized for Light Level expression of vector particles (as parkaging construct Light Level expression of vector particles (as parkaging construct Lor accentes in particles and allows expression of Magh yields of native proteins in higher entarryotes or insect cells, and supporting the particles for vaccination and gene therapy purposes unlike the complex regulator mechanisms of late gag and gappel expression from the particles for vaccination and gene therapy purposes unlike the complex regulator mechanisms of late gag and gappel expression from the presents the nucleotide sequence of a synthetic HIV-1 gag coding region

Sequence 1534 HP; 366 A; 510 C; 502 G; 161 T; 0 other;

181 atreogreagetgeaecegeertgeagaeeggeagegaggaggaggtgaagatgaagtteaae 240 101 etigacaagategaggaggaggageagaaeagteeaagaaggaeggeegee 360 61 otgegecengegadagaagtgetacatgatgaageacetggtgtgtgggecagecagecgag 120 61 ctgaggeeggeggeaagaagaagtataagetgaageacategtgtgggeeaqeagggag 120 121 ctuqaqaaqttogcootgaaccooggootgotgaagaccayogaggqotqoaagcaqato 180 121 ottugaqagqttcgccyftqaacccccygcctgqagaccaqcgagggctgcayycagatc 180 301 ottagacaaqateqaqqaqqaqqaqcaqaacaaqtqecaqcaqaaqatecagcag======gee 354 355 gaugengengaeaagggeaaggtgagenagaaetaeeeeategtgeagaaeetgeaggge 414 361 ganaceggreacageageagecaggteagecagaactaceccategtgeagaacatecaggge 420 24] anngtigonannntgtantgngtgnannagagatogagatoaaggaoanoaaggagoo 76.8%; Score 1136; DB 24; Length 1539; 86.7%; Pred. No. 1.4e 141; Indels Mismatches 185; Ö Conservative Hest Local Similarity Matches 1279; Consorr Onery Match Š a ŝ 9 Š â ŝ 9 Š

AAI67899 Standard; DNA; 1539 BP

AA167899 1F AA167 XX

1141 ggcaacttoaggaaccagaggaagaatggtgaagtgcttoaartgogqraaqgaqqorar=12001201 accaddaactycogogochocaggaagaaggetqotqgaagtgoggcaaggaggr 1260 1075 ogcytactggnesaggatgageeaggeeaageeaaeeeeg.....tgatgatgeaaa. 1128 1381 cignagagagagnoccgageccaccgecccccccgagagaganticagaagcggcgigitagaa 1440 961 otgotgatgaagaacqecdacccqactqcaagaaccatcotgaaggccotygacocyco 1020 1249 caccagatgaaggaactgcaccgagcgccaggccaacttcctgggcaagatctggcccage 1308 1309 cacaaqqqccqcccqqqcaact.cctqcaqaqccqcccqaqcccaccgcccccccqcc 1368 1369 gagaget tengettegaggaganeaeeeneggenagaaggagagagagagagegggg 1428 481 qaqaagqeetteaqeeeegaggtgateeeeatgtteagegeeetqagegagaqeaee 540 721 aqcaccetqeaqqaqeaqaateqqetqqatqareaaeaaeeeeeeeqtateqqqqaa 780 775 atertaesaageggtgtggateateergggeertgaaeaaagategtgeggatgtaeageeregtg_834 475 magaagacottoano comagnimatooccathitracogocothagogamgomeseec 535 ceenaggaentgaacacgatgttgaacacegtqggqeggeeaceaggengenatqoadatg 655 ggeceategeeeeggaagagagagagagagagagagagagagaaategeeggaaaeee atetaeaagaggtggateateetgggeetgaaeaagategtgaggatgtaeageeeeaee 955 intgrit ggt gragaarginaaanningaat graagannatinnt grgognt nticggeeeegge 1015 genadontggagagagatgatgatgatgaegentgenagggggtgtgggnnonagonnanaagggd gecapentggaggaggatgatgacegoetgecagggegtgggcgggececeeggecanaaggee 541 coccasquaectgaacaccatgetgaacaccgtuggacggocaccaugacqccatgcagata _otgaaggacaccateaacgagggcogoogagtggacogoogtggacooogtgcacoogtgca 661. ggcccccatogcccccccgatgaggagccccgcggcagccagcgacatrgccagcc agoaccetgoaggaggeagatogcotggatgaccaycaaccccccnatcoccgtyqgogac 835 ageatrolyggaeateaageagggeoreeaaggageeetteegegaetaegtggaeette ५०० । वर्षक्षप्रकारण कुरक्षाक्षाक्ष्यकुरुष्कुकुरुष्कुकुरुष्कुपुष्कुकुष्कुषुकुष्कवर्षे कुनुबन्निकुरुष्कुक्ष्यक 1189 atogenegeaact gergegeeereergeaagaagggetgetggaagtgreaagaagge 1261 caccagaigaaggacigcaccgagaggcaggccaacticcigggcaagaiciggccagc = 1429 accetqaceagertgaagaqeetgttegqeaacgae 1464 1441 accaeccaecceccagaagcaggageceat.egae 1476 q Ĝ 9 ें $\frac{q}{2}$ 3 3 S a ã Ē ŝ ź ã ÷ Ş٦ 9 5 5 q ã qq <u>1</u> Š g õ qq õ

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the invention relates to synthetic gag and gaggol genes optimized for high level expression via colon obtimization. The optimized genes can be used for treatment and prophylaxis of discusses caused by trroviruses as well as efficient generation of vector particles (as parkation ensignation to reme delivery). The optimized genes moving be used in the construction of daglot based genes modified for improved safety. Men used as packather construction of daglot based generations modified for improved safety, when used as packather near delivery and experies modified for improved safety, and expression of high yields of the figure proteins in higher embryones or insect cells, and supporting the generation of transduction competent
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86.6%; Pred. No. 2.5c 144;
139c // Mismarches 186; Indels 12; c
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Secret 1114.6; DB 21; Length 1865;

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Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Sequence 1, App.11 Sequence 128, App.	Sequence 123, App.	Sequence 128, App	Sequence 129, App.	Sequence 128, App.	Sequence 129, App.	Sequence 9, Appl.	Sequence 14, App.1	Sequence 15, Appl	Sequence 16, Appl	Sequence 3, Appli	Sequence 4, Appli		~	7,7	2	5
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2011 17-210A-78 -08-417-210A-78 Sequence 78, Application US/08417210A General Investmantens: CENERAL Investmantens:	APPLICANT: PACLETT, ENZO APPLICANT: TREFTALA, JAMES ASTITAT: A. WILLIAM I	COLORD HAZALON MARKADA COLARA MANAMANAN PANTROS ADMINISTRA O FLORINGESS 148 PARTROS MARKADA MANAMANAN MANAMANAN MANAMANAN MANAMANA	APPERSENCE METANOS. APPERSENCE DELLES MPRETS & SAFFORD, P.C. STEAT, 5 to 1474 AVLHUR CTTY. NEW YORK	STATE: NEW YORK COUNTRY: USA	COMPUTER READBLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: ISM PC compatible	OPERATING SYSTEM: PC-DOS/MS DOS SOFTWARE: Patentin Release #1.0, Version #1.30 CORRENT APPLICATION DAIA: AFFLICATION NUMBER: US/08/417,210A	FILING DATE: 05-APR-1995 CLASSIFICATION: 4-45 ATTONEX/AGANTION: NAME: KOWALSKI, HOMAS J.	25.52	REPORTATION FOR STOLID NO: 78: SEQUENCE CHARACTERISTICS: LEAGTH. 3407 Lease pairs TYPE: nucleic acid STRANDENDES: single FORGLOON: linear MOLECULE TYPE: DNA (Genomic)	/-Z1UA-/8
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Query Match 44.7%; Score 647; DH 2; Length 4807; Best Local Similarity 66.5%; Pred. No. 4.9e 90; Matches 999; Conservative 0; Mismatches 480; Indels 24; Gaps

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3183 ACAGGGGAAATTGCAGGGCCCTAGGAAAAAGGCTGTTGTTTT TT TT FULL TT
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AFFLICANI: CECHCE S., CHANG-JIE, CHEN, BANJERJEA, AKHIL,
TITLE OF INVENTION: DEFECTIVE, INTERFERING
TITLE OF INVENTION: HIV PARTICLES
NUMBER OF SEQUENCES: 77
COPPERSYONDENCE ANDRESS:
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COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WEED PERFECT 5.1
CURRENT APPLICATION DATA:
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; Patent No. 5847096
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28-AUG-1992
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CLASSIFICATION: 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: PICHARD W. HOPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NE: 212-758-4800
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CAMPUTER READABLE FORM:
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US-08-418-848A-9
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US-08-418-848A-9
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TITLE OF INVENTION: PRIMATE LENTIVIRUS VACCINES
NUMBER OF SEQUENCES: 57
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REFERENCE/OBCKIT NUMBER: 05246/079002
FELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07/551,945
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APPLICANT: McBhee, Dale A.
APPLICANT: 2r-we, Suzanne
APPLICANT: Cooper, David
TITLE OF INVENTION: NºN-PATHOGENIC STRAINS OF HIV-1
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Patentin Release #1.0, Version #1.25
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400 Garden City Plaza
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// Patent No. 6010895
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC COmpatible
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United States
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CURRENT AFFLICATION DATA:
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ALLOPHEYZASIAL IMPORMATION:
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LINGTH: 9709 base pairs
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PEGISSMAIL'N NUMBER: 41,
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1750 TTGTTGGTGCGAAAATGCGAAGCCAGATTGTAAGACTATTTTAAAAGCATTGGGAGGAGA 1809

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APPLICANT: Nicholas J. Deacon
APPLICANT: Dale A. Methee
APPLICANT: Lavid Copper
TITLE OF INVIRCES. RAFFER ABBLE STRAINS OF HIVEL
NUMBER OF SEQUENTES: 841 SCOLLY, SCOLT, MURPHY & PRESSER 400 GANDEN CITY HAZA) Sequence 1, Applacation 05/08488551B) Patent No. 6015661 CHERESHINDENCE ADDRESS: CITY: GARDEN CITY NEW YORK (Y: U.S.A. 11530 0299 1477 taa 1479 2290 TAA 2292 ADDRESSEE: US-08-488-551B-1 COUNTRY: STATE: RESULT Ś 급 ó <u>а</u> ò ć

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                                                                                    Version #]
                                                                                                 ....ING DATE: ......NG PARE, F51R
PRIOR APPLICATION DATE:
PITTER
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14-PER-1995
                                    COMPUTER: TRM PC compatible OPERATING SYSTEM: PC-DUS/MS-LUS SOFTWARE: Patentin release #1.0,
                                                                                                                                                                          JMBER: PM3864 (AU)
14-FEB-1994
                                                                                                                                                                                                                                                FILING DATE: 21-FHH-1994
APPLICATION NUMBER: PN0284 (AU)
FILING DATE: 23-DEC:1994
                                                                                                                                                                                                                            APPLICATION NUMBER: PM4002 (AU)
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                                                                                                                                                                                                                                                                                                                                                        PN3021/95
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TELEFAX: (516) 742-43nh
INFORMATION FOR SEQ ID NO. 1.
COMPUTER REALGELE FORM:
MEDIUM TYPE: Floppy disk
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LENGTH: 9709 base pairs
TYPE: nucleic acid
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Similarity _66.48; Pred No 6.76-40;
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                                                                                                                                                                                                                                                                                                          STREET: 2421 N.W. 41st Street, Suite A-1
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43.6%, Score 645.4; DB 4; Length 15581; 66.4%; Pred. No. 6.7e-90;
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Obj. Conservative 0; Mismatches 480; Indels 30; Gaps
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APPLICANT: WEINER, ALBRECHT
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ITHE OF INVENTION: Tymphokine (1813)" to inhibit the replication of
ITHE OF INVENTION: TYMPSES, particularly of retroviruses
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EARLIER APLICATION MANBER: DE 195-13-152.5
RAPLIER FULLING DATE: 1995-04-07
NUMBER OF SEQ. ID. NOS. 8
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EARLIER AFFLICATION NUMBER: DP 95113013.2
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APPLICANT: RUFFH, BUINHARD
APPLICANT BATER, MICHAEL
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INFORMATION FOR SEQ ID NO: 5:
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Ouery Match 42.5%; Score 628; DB 4; Longth 8932; Best Local Similarity 67.2%; Pred. No. 2.86-87; Matches 924; Conserrative 9; Mismatches 449; Indels II

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APPLICANT: WONG-STAAL, Flossie
TITLE OF INVENTION: CLONING AND EXPRESSION OF HTLV-111 DNA
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APPLICATION NUMBER: IIS 067693,846
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Patent No. 6001977
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TELEFAX: (212) 751-6849
INFORMATION FOR SEU ID NO: 4:
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Score 628; DB 4; Length 8933; Pred, No. 2.8e 87;

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Best Lowal Similarity

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RESI US-C	RESULT 15 US-09-620 958A 4 : Sequence 4, Application US/09620958A : Section No. 6244338		
5 7 7 7	GENERAL INFORMATION: APPLICANT: Nunceura Klychada TILLE OF INVENTION: POLINUCLECTIDE AMPLIFICAL PILDE REPERROCE: OPIOA-02.UT	AMPLIFICATION METHOD	
	CURRENT APPLICATION NUMBER 18,704,7620,958A; CURRENT FILLING DATE: 20,00-07-21; NUMBER OF SEQ ID NOS: 9	,958 A	
" \$) SOFTWARE, TOSUSED FOR WINDOWS VOISION 3.0) SEQ ID NO 4) LENGTH: 8933) TYPE: RNA	0 m	
	Artificial Sequence		
	: OTHER INFORMATION: Sequence of the IAC-Asr. Patent No. 6294338 : NAME/KEY: mufation	the IAC-Asrc pseudo target	
) - SI	.(4155) Mutated positions: 4152-3, 4155	. 4135, 4140-1, 4145, 4150,	
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1,0008	BF259495 759 bp mRNA linear EST 22-621 2001
DEFINITION	HVSME(100) 94(19) Hordeum Vulgare seedling root EST library HVebNA0007
	(Etiolated and unstressed) Hordeum vulgare conve
	HVSME(10019H19t, mRNA sequence.
ACCESSION	BF259495
VERSION	BF259495.2 GI:13120022
KEYWORDS	EST.
SOURCE	barley.
ORGANISM	Hordenm valante
	Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Trachesphyta;
	Spermatophyta: Maquoliophyta: Elliopsida: Poales; Poaceae; Fooideae
	7 Triticeae; Bordeum.
KEPERENCE	1 (bases 1 to 759)
AUTHORS	Wind, R., Close, F.J., Kleinhols, A., Wise, R., Bequm, D., Frisch, D., Yu-
	.Y. Henry, D. Palmer, M. Rambo, J., Sindnons, J., Choi, D.K., Fenton

REPERENCE	1 (bases 1 to 759)
AUTHORS	Wind, R., Close, F.J., Kleinhols, A., Wise, R., Bequm, D., Frisch, D.,
	Y., Henry, D., Palmer, M., Rambo, T., Simmons, J., Choi, D.W., Fenton
	, R.D., outes, R. and Main, D.
TITLE	Development of a genetically and physically anchored EST resenter
	for barley genomics: Morex unstressed seedling root cDNA library
JOHNAL	Unpublished (2001)
COMMERCE	on Nov 16, 2000 this sequence version replaced qi:11188608.
	Contact: Wing RA
	Clemson University Genomics Institute
	Clemson University
	100 Jordan Hall, Clemson, SC 29634, USA
	Tel: 864-656-7288
	Fax: 864 656 4293
	Email: rwing sclemson.edu
	Total he bases 488
	Seq primer: AATTAACCTICACTAAAAGG
	High quality sequence stop: 758.
FEATURES	Location/Qualitiers
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	.531 - x1crt "f a x500;45] 4"
	Zelone "HVSMEf0019H191"
	/clone lib "Hordeum Vulgare seedling root EST library
	HVcDNA8887 (Etiolated and unstressed)"

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Also bost. Tagl21.
Also bost. Tagl21.
Anti-Vertor landarAP. Sit. East, Sit. 2. Abol;
Seeds were surface sterilized then germinated under axenic conditions in the dark at room temperature on filter paper.
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Riverside (Choi, Close, Penton). Phagemids were plated and
picked at the Clemson University Generics Institute (CHOI)
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this clone see http://www.genomo-clemson_edu/orders_Also
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Fikaryota, Vistispladas, Stagrada, Ertopolyta, Tranboopbyta,
Spormatophyta, Magueliophyta, Hiliopsida, Poalas, Poaceae, Pooldeae
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US Department of Agriculture, Agriculture Research Service, Pacific
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Tel: 510559573
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Anote "Vector, psiucscript SK(), Site_1, Ecosi, Site_2;
Xhoi; Plants were grown at Washington State University,
Under in iquid nitroge, the rachises were excised and
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Mind.R., Close, T.J., Kleinhofs, A., Wise, R., Chin, A., Bequm, D.,
Frisch, D., Atkins, M., Yu, Y., Henry, D., Palmer, M., Rambe, T., Simmons
, J., Cates, R. and Main, D.
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(Wite, Yo, Prisch, Brury, Simmons, Kombo, Main). The sequence has been trimmed to remove verse sequence and cardina a minimum of 100 bases of phred value 20 or above. For more details on library preparation and
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Generically and physically anchored EST resources for
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United Sabart a model is yequipsychopics, become 18:1,"
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Enkipyia Motanza Alfhrepida Trachesta: Hexapeda: Insecta;
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All Submitted (02 JGN 1999) demoscope - Centre National de Sequencace : RP 191 91806 LBMY redex FRANCE (E mail , sequel separatoris.tr - Meb : www.aemoscope.cns.tr - Meb : www.aemoscope.cns.tr - Goldboration of this RAP end sequence was carried out as part of a collaboration with the Berkeley Prosophila Genome Project (BPGP). (5) For a secondarion with the Berkeley Prosophila Genome Project (BPGP). (6) For a secondarion with the Berkeley Prosophila Genome Project (BPGP). (7) For a secondarion and prosophila a medancy secondarion with the Berkeley Prosophila Genome Frome BAZ (BPC) was prepared by Earthey Genome and Anton Manmosor in Pieter de Jond's Laboratory in the Department of Case of the Frome BAZ (BPC) was prepared by Earthey Genome and Anton Manmosor in Pieter de Jond's Laboratory in the Department of Case of The Fibrary is named BEC (BPC) by the BADP trom the BAGP's Pland ESC (BPC) of Drosophila bNA provided by the BADP from the Sequence Content can be filled to the BADP trom BADP for the BADP Content can be filled by the BADP Content can be filled by the BADP Content can be
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660 ratrumencerogecagaturgegagececgrogeagegaeategee 705
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            855 California Ave, Palo Alto, CA 94304, USA
                                           clade, Panicoideae, Andropogomeae; Zea.
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Fax: 650 725 8221
Email: walbot@stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                            Stanford University
                                                                                                                                                                                                                                                                      Unpublished (1999)
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Sportmitophyta: Majnotlophyta: Lillopsida; Podles; Boacear: PACC clade, Panicoddeae, Andropogoneae, Zea.

[ (bases 1 to 813)
Singh, I.A., Wakui, F., Couroux, P., De Moors, A., Harris, L. T., Hattori Singh, I.A., Wakui, F., Couroux, P., De Moors, A., Harris, L. T., Hattori Expressed Sequence Tuys from Cold Strossed Maize Seedlings
Unpublished (2001)
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                                                                  Zmc4_03463_k Zm04_AAFC_ECGRC_cold_stressed_maize_scedlings Zea mays cDNA clone Zm04_03403, mRNA sequence.
                                               EST 27-FEB-2001
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/note="Vactor: Ringscript SK-/Xhot-FooR; Site_1: Eco RI:
                                                                                                                                                                                                                                                Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
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Agricullure and Agri-food Canada
960 Garling Avenue, Hidg. 20, Ottawa, ontario, KIA 005, Canada
TEL. (613) 759-1662
Fax: (613) 759-1701
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West Area, Western Regional Research Center
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"Entitional measures as early reproductive apex

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chMA library"

/Theoretype "Early reproductive apex"

/Francingly progress week old plants"

/Lab host "E. coli XLOLK"

/Lab host "E. coli KNA, and

poly(A) RNA were prepared from apex at double-ridge stage

/Lab host "E. coli KNA, and

poly(A) RNA were prepared from apex at double-ridge stage

/Lab host "E. coli KNA, and

poly(A) RNA were prepared from apex at double-ridge stage

/Lab host "E. coli KNA, and

poly(A) RNA were prepared from apex at double-ridge stage

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Wins, F. (Pisse; T. Reinhots, A., Wise, P., Bospum, D., Erisch, D., Yn. Wins, P., Poleny, D., Palmer M., Rambo, T., Simmons, J., Choi, D.W., Penton E.N., Cisse, S.J., Oates, E. and Main, D.
                                                                                                                                                                                                                                                                                                                                                                                                                                              University of California, Davis (V. Echenique, B. Stamova, J. Dubrovsky). Plasmid DNA proparations and DNA sequencing were performed in the of Anderson lab (all other authors).
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                                                                                 Unpublished (2001)
on Jun 26, 2000 this sequence version replaced qi:13188135.
Contact: Wing RA
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44.38;
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//obje="syn: Phreatamoeba balamuthi"
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rockechterfor.C.370 Mastramonta balanchi landan TAF II Library
Mastramocka balamuthi chwa similar to pyrophosphate (fructose
6 phosphate 1 phosphotransferase, mRNA sequence.
263 TOTACGAGGOTTGTCCAASAACGTCAAGGTGGGGGTGCATGAGGAGTGGCAGAAQOGGG 322
                                                                                                                                                                                                                                       323 COAASCHOOCOGASCHGOTOCOGTACCASTROSAGGAGGGGGGAGGACTGACTAGCC 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Baptester E., Brinkmann, H., Lee, J.A., Moore, D.V., Sensen, C.W., Grebe, F., Flacker, F., Flack
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Live 0; Mismatches 512; Indels 18; Gaps
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1 (bases i to 1177)
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The Rockefeller University
1230 York Avenue, New York, NY 10021, USA
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conducted using the large and water gettipsylwam flat on glooffiable). Lucy parameters were set to ensure an overall trimmed quality of 25.4% or better without any vector transmists in the chosen high-quality region of each sequence. Low quality bases between the poly I and the high quality region were replaced with N's to serve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        resulting DNA:RNA hybrid was freated with RNase H and used as a template for DNA Foll catalyzed second strand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (littp., bfrewich often ob. ottoes, other, direct index.htm.th rt), overall sequence quality assessment and vector trimming were
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ECONI and NOLL Sites of the pTZTSPAN Vector. The library then went through one round of normalization to CoI value of 5 based on the methods of Marcelo Bento Soares (Geneme Research 6: 791-806, 1996)."
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Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ds-cDMAs were digested with Not1 and size selected. The resulting molecules were directionally cloned into the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FORWARD: Forward PCR primer sequence, primer T?-1 (AA 1AC GA' 1CA
                                                                                                                                                                                                                                                                                                                                                                                                                            Individual basecall and confidence value were assigned using the
                            Spermatophyta: Magnoliophyta; Liliopsida; Poales; Poaceae; PATÓ
clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                   Ashlock, D.A., Wen, T. 1. and Schnable, P.S.
                                                                                                                                                                                                                                                                                               G405 Adronomy, Towa Śtate University, Ames, TA 50011-1010, USA
Tel: 515-294-0975
Fax: 515-294-2299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        addition of Evok! adaptors, the
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                                                                               gin,E., Cui,E., Caro,E., Ashlock,D A, Wen,T L and Schnable,
Expressed Sequence Tags from B73 Maize Seedlings and Silks
Outpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 67.2; DB 10; Length 668;
Pred. No. 3.8;
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/clone="MESIUS-009"
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                                                                                                                                                                                                            Contact: Patrick S. Schnable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Localion/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                            Email: schnable dastate.edu
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/lab_host="DH10B"
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Best Local Similarity 47.9%;
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HELP3183 769 bp mRNA linear EST 22-OCT-2001
HVSMEH0080B02f Hordeum vulgare 5-45 DAP spike EST library
HVCPNA0009 (5 to 45 DAP) Hordeum vulgare cDNA clone HVSMEh0080B02f,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Enkriyota, Viridiplantae, Streptophytu, Embryophytu, Tiacheuphytu, Spermatophyta; Magnoliophyta; Liliopsida, Foales; Foaceae; Poblideae; Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 769)
Wing,R., Close,T.J., Kleinhofs,A., Wise,R., Begum,D., Frisch,D., Yu
,Y., Henry,D., Palmor.M., Rambo,T., Slmmons,J. Chai,D.W., Fenton
,K.D., Close,S.J., Oates,R. and Main,D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Development of a genetically and physically anoborous EST resource for barley genomics: Morex 5-45 DAP spike cDNA library Snpublished (2001)
                                                                             300 colqqarqaqqatqqaqqaqqaqraqaaqaaqtqrraqraqaaqatocaycaqqqqqqqqq
                                      420 gqtqcaccaqgccatcaqcccccqcaccctgaacqcctqqqtgaaggtgatcqaqqagaa 479
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                                                                                                                                                                                                                                                                                                                                                                                                               600 ggararraticaacgaggggggggcgcgcgggggggccgggggcccgtgcgcgggccc 659
                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE TO THE TOTAL TO SERVE A SERVE SHEET WE
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100 Joadan Hall, Clemson, SC 29634, USA
Tel: 864-656 7288
Fax: 864-656-4293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Clemson University Genomics Institute
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/db_xref "taxon.4513"
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                                                                                                                                                                                                                                                                                                                                                                                                                                   139 GIACAT TOTAL
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BE193183
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/elema_lib "Merdoum velqire 5-45 DAP apike MST library HVCDNA0009 (5 to 45 DAP)"

/clone "HVSMEhöö8ōB021"

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Plants were grown in the greenhouse at the University of California, Riverside (Fenton, SJ Close, TJ Close). Whole spikes with awas trimmed were collected at 5, 10, 15, 20, 30 and 45 DAP (Fenton), Total RNA was prepared from each pool, equal quantities of all six RNA pools were combined, poly(A) EMA was purified from the mixture, one primary unamplified coDA library was made, and 1 million ptu were in Tive excised to give phlucatify SK () cEMA phagemids (Choi)in the TJ Close lab at the University of California, Riverside, Plademids were plated and picked at the Close university Genformia, Riverside, Plademids were plated and picked at the Close University Genemer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Frisch, Akkins and Wing). Plasmid EMA Frequentions, DNA sequencing and Sequence analysis were performed at COGI (Wing, Yu, Frisch, Benry, Simmons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 or above. For more details on library preparation and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scretically and physically anchored HST resources for barley genemics. Barley Genetics Newsletter 31:29-30. Chits. Wheat per under a reperce lette of sever hims;" 225 c. 247 q. 115 t. 3 others.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           654 ogarconstogocoocqanosagstacacaaqoonnunaqoogsostoqnosacaocs 713
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4.5%: Score 66.2; DB 9; Length 769;
Best Local Similarity 47.3%; Pred. No. 5.2;
Matches 274; Conservative 0; Mismatches 293; Indels 12; Gaps
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/tissue_type."5.45 DAP Spike"
/lab_host."SoLR"
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Email: yinakama Parensa e jp, "Kilatti, ?**** Paressa e jpjenjplant/.
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alga, Chlamydomonas reinhardfil. 1. Generation of 3433
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Kazusa DNA Research Institute
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547 POSSESTATION OF FORMANDACIAN CANDACTANDAN S85
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1 (bases 1 to 599)
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/db_xret="table-to55"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Yasukazu Nakamura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The amy demonstrate inhardtil.
The amy demonstrate in the results 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AV191247.1 GI:6545453
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Bukaryota, Viridiplantae, Streptophyta: Embigophyta; Tracheophyta;
Spermatophyta: Maunoliophyta: Liliopsida; Foales; Poaceae; Peoideae,
Friticae, Friticum.
1 (bases 1 to 627)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note-"Vector: pGAD10; Site.1: BCOKE; Site.2: Xhot;
Embryos were cut from mature, dormant seeds and imbibed in
25 microM ABA (abscisic acid) in 5 mM Mes buffer, pH 5.7,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Plasmid
                        linear EST 08-AUG 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: olin Anderson
US Department of Agriculture, Agriculture Research Service, Facilie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Walker-Simmons's lab (USDA-AKS, Washington State Univ., Pullmat. Washington 99164-6420. A cDMA library was made by Clontecth using a combination of random and oligo diptimens. Library was plated and archived by Kussell Johnson (Colby College, ME/Walker Simmons' lab). Plasmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA preparations and DNA sequencing were performed in the OD Anderson lab (all other authors)."
                                                                                                                                                                                                                                                                                                                                                                                                             Anderson, O.D., Chao, S., Han, P.S., Hsia, C.C., Johnson, R.R., Kanq, Y.,
Laro, C.R., Miller, R., Ranseh, C.J., Scaton, C.L., Tona, J.C., Verkey,
S.D. and Walker-Simmons, M.K.
WHEO615_F02_L03ZA Wheat ABA treated embryo cbNA library Triticum acstivum cbNA close WHEO615_F02_L035 mKNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for 12 hr at 22 C. The tissue, total RNA, and poly(A) RNA were prepared by Steven Verhey in M.K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The structure and function of the expressed portion of the wheat genomes – ABA-treated embryo library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zenlivar "Brevor (soft, white, winter, common wheat)"
JR_ater "taxon:4565"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          192 geaececqeeet geagaeeqqeaqeqaqaqet gaaqaqeet qtit eacaeeqtqqeeae (25)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [18] is as continual condition that the temperature and stands and adult out condition from [19].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; daps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence have been trimmed to remove vector sequence and low quality sequence with phred score less than 20 seq primer: Clontech Matchmaker 3' AD primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone_lib "Wheat ABA treated embryo cDNA_library"
/tissue_type "Seed embryo"
/dev_stage "Mature dormant seeds"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.4%; Score 65.2; DB 10; Length 627;
Local Similarity 45.6%; Pred: No. 7.1;
hes 229; Conservative 0; Mismatobox ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               West Area, Western Regional Research Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       800 Buchanan Street, Albany, CA 94710, USA
Tel. 5185555773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism "Triticum aestivum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /lab_host "E. coli DH128"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone "WHE0615_F02,L03"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lossation/Onalitiess
1, .627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: oandersn@pw.usda.qov
                                                                                                                                                BE517190.1 G1:9741220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (2000)
                                                                                                                                                                                                                                                      Triticum aestivum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5105595818
                                                                                                                                                                                                                    bread wheat
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Search completed: July 1, 2002, 12:01:45 Job time: 3830 sec

GenCore version 4.5 Capyrith (c) 1933 - 2000 Compagen Ltd.

oM nucleic succeic search, asing sw model

July 1, 2002, 12:01:45 ; Search time 3804.92 Seconds (Without alignments) 5352.781 Million cell appares/sec Run sun:

US 009 475 - 704 - 4 1509 lithe: Perfect score:

Section of the second

TERMITTY NUC Scoring table;

Capop 10.0 , Capovi 1 o

27472414 total number of hits satisfying chosen parameters:

13736207 seqs, 6748477542 residues

Searched:

Minimum blases length: 6 Miximum blases tength: 200500000

Fost processing Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

*:183

1: em_estba;*
2: em_estbam;*
4: em_est[n;*
4: em_estma;*
5: em_estax;* em estro; *
em htc: *
eb htc: * qb est2:* Fred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

em qss_iny;*
em qss_pin;*
em qss_vii;*

** introduction in *

4b_htr:*

alp dss:*

SUMMARIES

Fr. 5	Scere		overy March Length DB ID	ĿВ	II	bescription
· –		7.	1674	2	BE646712	BE636712 rocketel
7	76.4		4,56	10	BF259495	BF259495 HVSME1001
-	7 5,	9.5	6.0%	10	BG314500	BG314500 WHE2495_E
~	7.4	4.3	6, 47	_ _	B1960118	B1960118 HVSMED002
	74.8	6.4	7'5'3	=	BF484404	HF484304 WHE2421_F
÷	30	: · ·		C:	23.25.233	BE636532 FOLKETT
-	70.6	÷ •	1, 5, 7	=	R1718023	B1718023 103102400
ε	711.2	4.7	843	<u> </u>	RES17 (05)	BE517305 WHE0616_A
-	1.1	+ -	716	<u></u>	0NS0072Q	AL966742 brosophil
_	6.6, 6,	4.4	1101	2	YRS0178Y	ALT08460 Drosophil
_	1,1,1	4.4	1510	-	BM 5.21119	BM321119 rockeiell
~	4.6, . 4	च च	30	01	80321263	RG321263 Zm04_03q0
* - :	6.6	4.4	្នាអូរ៉ូ	ç	AL565284	AL565284 AL565284
÷	f., f.	4.4	976	1.5	GNS0091P	AL053013 Drosophil
_	x. 5.2	4.4	្តមអ	<u></u>	A3159162	A0159162 Fam trog1
1,	41.514	4.5	1.04,	5	ALS51163	AL551163 AL551163
-	6.5.4	¥.	1177	9	BE6 46482	11040400 F06682 F07404011

24. 8.	4.4	177	ج	HE194711	BELG 3711 HVSMELOOR
64.6	4.4	415	<u></u>	RF483204	RP483204 WHEL787_B
64.6	¥. ÷	862	=	BG310173	BG410174 HVSMECOOL
64.6	7 . +	884	_	AU127670	Ag (27.67% ababee) 4 Hr
64.4	4.4	7 48	<i>-</i>	AW448048	AW448048 BKY_1557
64.2		1444	9.7	BM321064	BM 421064 TOCKETELL
64	 	6,6,5	-	AV (912.87	AV (91232) AV (91237)
6.4.8		5/5	2	RE415911	188415911 MUGOGZ.CT
63.8	4.2	979	0.7	BE416591	BE416591 MUGD09, CO
9.19		333	0	RC348428	BC948428 [F1] 12 [C1]
64.6		806	1.5	CNS006B4	AL064031 Drosophil
64.4	4.2	6.2.1	=	BE361916	BE361916 DG1 83 D1
64.4	7.4	625	j.	AW565179	AW565179 L31_428_A
64.2	77.	1056	0.7	86998	BEE36608 rucketell
62.8		019	5	AV914751	AV914751 AV914751
62.8		785	2	BG 466969	RG366969 HVSMETCHU
62.6		[62]	C1	RE5 46.600	BES 36,600 Tocketel I
62.4	4.1	583	0	HE489912	BE489912 WHE0363
62.4	4.1	1304	2	BE636658	BE646658 rocketell
62.2	4.1	419	J	AU093246	AID93236 AID93236
62.2	7	7	2	BM1 386.27	HW138627 WHE0494 H
ਰ: ਰ ਼	4	266	0	HF628924	RF628923 HVSMEDOOO
79	4.1	ر H را در H	=	BF255477	BF255477 HVSMELOOD
7.9	T . T	ž	=	BF4745 48	BP474538 WHE2102 C
74		1 44 1	7	A0040611	AGO30611 Pan troul
8.13	4.1	609	Ξ	BG300703	BG 4007 0 4 HVSMED001
61.6	4	408	=	BG7 3928B	P417 49288 EMI 80
9.19	4	476	0	RM441946	HM441946 EBanol SU

ALTONMENTS

RESULT 1 BE636712	
LOCUS	HE646712 1674 bp mRNA linear BST 03-JAN 2002
DEFINITION	ter 0.42 Mastigamocba balamathi tambda ZAP 11 Library oeba balamuthi cDNA similar to vacuolar ATP synthase W (EC 3 to 1.3), mENA sconence.
ACCESSION	HE6 (6712
VERSION	HE646712.1 G1:9919823
KEYWORDS	EST.
SOURCE	Mastigamoeba balamuthi.
ORGANISM	Mastigamoeba balamuthi
	Enkaryota; Pelobiontida; Mastigamoebidae; Mastigamoeba.
KEFERENCE	1 (bases 1 to 1674)
AUTHORS	Hapteste, E., Brinkmann, H., Lee, J.A., Moore, D.V., Sensen.C.W.,
	<pre>Gordon,P., Durufle,L., Gaasterland,T., Lopez,P., Muller,M. and Delling B</pre>
	F11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
TITLE	The analysis of 100 genes supports the grouping of three highly
	divergent amocbae: DietyOstelium, Entamoeba, and Mastigamoeba
JOURNAL.	Proc. Natl. Acad. Sci. U. S. A. 99 (4), 1414-1419 (2002)
COMMENT	Contact: Muller Miklos
	Laboratory of Blochemical Parasitology
	The Rocketeller University
	1230 York Avenue, New York, NY 10021, USA
	Email: gmailer/rockvax.rocketeller.edu
	Insert Length: 1674 Std Error: 0.00
	POLYA-Yes.
FEATURES	Location/Qualitiers
SOUFCE	11674
	/organism "Mastigamoeba balamuthi"
	/strain "Arce age84"
	Zdb xiert "taxon:108607"
	Zotope lib "Mastigamsorta balamathi lambda 2AP II Library"
	Znote "syn, Phreatanocha balamuthi"
BASE COUNT	848 a 561 c 493 g 269 t 3 others
ON LOIN	

97.3. CGAPPATPTAPPAGAGNSTGPPGGGRANGTG==--TPGAGGGRAAAAAAAAAAGGFFGAATPAAGAAAAGT-1629 950 contgetastacasaacsccaaccensactgcaagaccatertgcgcgctctcgcccq 1000 840 introaggenntgrappingspragningspragnings 319 119 agmiggaggitingcotgaaccoggcetgetggagaccgaggggetgcaagcaga 178 179 toatgaagoayotgoocgooctycagaceggeacegaagetgegeageetgtaca 238 256 TCGTGCAGGTCTTTGAGGGCACGTCTCGGCATCGACGCCAAGAAGACACGCACTGCGAGTTCA 315 376 GAGGGGGGGGGGTDGATAAAGGGDGGGGGGGGATAAFAAAAGTTGGFGAAGATGGAGGG 435 356 aggaggeeganggeaaggigagenagaactaeeeealegigeagaaeetgeagggeeaga 415 436 GCCAGGCCATOAACCCGTAGAAGCGTGTATAGAGCGAGAGAGATGATGAGAGGGGGATCA 495 476 aggiorthoaginnnyaggtgatenneatgtteaeeggeegagggggggggeeeeeeee 535 616 TOTASASGASTASASASGTSGASTAPORACIAGSATAAOTIGSSOTATOSIGITGGAS 675 416 tyqtgcaccagqccaccagccccqcacctgaacqcctgggtgaagqtgatcqaggaga 475 536 aggadotgaanangatgttgaacachytgggeggecaeeayyeeyeeatgeagatgetga 595 676 CCATGGGTGTCAACATGGAGACTGGCAGGTTGTTGGGGGAGTTGGAGGAGGAGAAGGGT 735 7]k nnntgnaggagdagatngontggatgannagnaannynneggtgeeegtgggaeatet 775 796 TCACGCCCCCCTTG---GGTTCACGACGACGAGTACGGGGTACGGGGAGAIGC 852 776 acaagcggtggatcatcctgggcct-----gaacauqatcgtgcggatgtacagccccg 829 85.8. ANTINCTION DATION GARGARATINI GIT STANDER GARGARATINI CONTRACTOR CONTRA 830 tgaggatoctggacatcogccagggccccaaggagcccttccgcgactacgtggaccqct 889 913 CGGCCCGTGAGGAGGAGCTGGGCGTGGTTACCCGGCTAACATGTACAAGATGTGG 972 297 indecetggacaagategaggaggaggaggagaaeaagteeeaggaagaagacaggeea 239 anaccqtggccaccctgtantgcgtgcacgccqgrat.cqagqtccgcgacaccaagga--q 1 9 ŝ 90 ć <u>q</u> 5 2 ŝ <u>a</u> õ Op 55 ö £ 윤 5 qq 3 <u>a</u> Š ò ö 73 Š g ο̈́ ò

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759 bp mRNA libear LST 22-oct 2001 (Et.alated and unatressed) Hordeum vulgare seedling rest EST library HVcPNAnoug7 (Et.alated and unatressed) Hordeum vulgare cDNA clone PNSME10019819f, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Embaryota, Viciditiantae, Streptsphyta, Embaryothyla, Itacheophyta, Sprinditiplyta, Tradecae: Pooldeae, Sprinditiese: Hondoum, Apta, Lillipsida, Poales: Poaceae; Pooldeae, Triticeae: Hondoum, (Casce Lo 759)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , Kleinhofs, A., Wise, R., Regum, D., Frisch, D., Yu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y., Henry, P., Falmer, M., Fambo, T., Simmens, J., Choi, D.W., Fenton, R.D., Oates, R. and Main, D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    crystallization dishes. Fire day old seedling roots were then harvested, total RNA was prepared, poly(A) RNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Development of a genetically and physically anchored EST resource
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                                                      1210 COCOCCACACACACTOCCASTSTSCAAACTAACTSTACCAACTAACCAATOCCAAGAAAG
                                                                                                                                                                                                                                                                                                                                                                  1390 GPGAFATCTACCAGTGGGTGGACATGGGCTGGAGGTGTGGGG----GCAGTTGGGGAAGG 1445
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1187 acatogocaagaactgoogoccocopaagaagggetgotgaaqtgoggoaaggagg 1246
                                                                                                                                                                               1270 AFAFGAFGGFFATGAAGGFTGFGGTGGGFGAGGAGGCGTGFFGGGGGAGGAGGAGGAGTGG 1329
                                                                                                                                                                                                                                            1247 godachagatgaaqqantqcaeegagrqchagqebaacttrotggqbaagatotqqeeea 1306
                                                                                                                                                                                                                                                                                                      1330 CCCTGGGGTTCCTCGAGAAGTTCGAGAGGTTCATCACGCGGGGCTACAACGAGTGGC 1389
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HydoNAN007 (Etholated and unstressed)"
/Libour_lpe_"Seedling root"
/lab_nost.="TJC121"
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On Nev 16, 2000 this sequence version replaced qi:11188608.
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Tci: 854 556 7288
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/cultivar="Morex"
/db_x++ f "taxon:4513"
/clone="HVSMEf0019H19f"
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partitled, our primary insumplified GDMA library was made, and I milition plu were in vivo everywest to give palmoscript SK(*) cDMA phagements. These steps were performed in the lust loss alphoratory at the University of California, Riverside Chois Glose, Penton. Phagemids were placed and picked of the Clemson University Genemics Institute (CUGI)
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this clone see http://www-percec-clomen edu/erfers Also
see Close IJ, Wing R, Kleinhols A, Wise R (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of
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(http://wheat.px.com/a/papercy/bar/of/procedent/?
1 282 p. 184 q. 133 1.
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Mastiqumoeba balamuthi ebNA similar to tryptophanase (PC 4.1.99.2),
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/notes-"syn: Phreatamoeba balamuthi"
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Gordon, P., Baruffe, L., Gaasterland, E., Lopez, P., Muller, M. and
Philippe, H.
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Analyses of the Chlamydomonas reinhardtii Genome: A Model,
Unicellular System for Analyzing Gene Function and Regulation in
Vascular Plants, Project: 1031
Unpublished (2001)
Confact: Charles Hauser
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//strain="CC-1690 wild type mt+ 21gr"
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//dow=[ik="Cc-reinhardtii CC-1690, Stress 11 (noimalians)
// Lambdb 24p [1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Davies and Jeffrey McDermott, combines cbNNs from CC-1690 cells grown to mid-log phase in TAP (NB4+ containing) and shifted to TAP + NB3+ (C4189); H2 production conditions (6, 12hr, 24hr) see Melis et al., (2000) Plant Phys. 12: 127: 125: TAP+ HD22 (1, 12, 124 hr); TAP+ Sorbifol (1, 2, 6, 24 hr); TAP+ G4 (1, 2, 6, 24 hr); PolyA MRNA was purified from each sample, pooled and cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    synthesized. The cDNA was directionally closed into lambda
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XhoI: Stress condition II library, constructed by John
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Eukrippin, Viridiplantae, Chlorophita, Chlorophipoue, Volvocales,
Chlamydomonadaceae; Chlamydomonas.
                                                                                                                                                                                                                                                                                                                                                                                                            974 GCATCTCGGTGCGTTCGGGACCTACAGGGACGACACATACACCGCGCGCCGCGGGGGGCGCCA 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1034 TOGOGGAGCTGCACCGCAAAAAAAAGGCCTGATAAAGAIGAAGAICGTGCGGGGAGC 1093
590 tantakagasasatsaasqaaqaqqsegesqaqbaqqueegestqootgestqootges
                              710 chaqeannetgeaggageagathqnetggatgaeeaqraaneeeeegtqeneqtgggeg 769
                                                                                                                                                                                                            830 tgaqcatreftgacatccqccaqqqccccaaggaqccttecqcgactacqtggaccqct 889
                                                                                                                                                                                                                                                                                                                                                                                                                                                         890 tottoaagannotgogogogogogaggggagggaggtgaagaactggatgacgaga 949
                                                                                            650 innaunningtigghanning nakatatangkanna kanthadagasatogeorgona 769
                                                                                                                                                                                                                                                                         770 anathlanaagnggigginalnalnetgggeetgaacaaqategtgeggatqtanaqeeeeg 829
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Durham, NC 27708 1000
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Fax: 919 613 8177
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Estatyota, Viridiplantae, Streptophyta, Embryophyta; Tracheophyta;
Spormatophyta, Maraeliophyta, Elliopsida, Poales; Poaceae; Pooldeae;
; Triticeae; Triticum.
Zap II (Stratagene) in the EcoRI (57) and XhoRI (37) sites. pRivescript II SK plasmids were excised from the lambda ZAF clones by superinfection with ExAssist (Stratagene) phage. The library was normalized using method 4 described in Bonaldo et al., (1996) Genome Pescarch b: 791-806."
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                                                                                                                                                                                                                                                                  4.7%; Score 70.6; DB 10; Length 671; 45.8%; Pred. Nc. 2.7;
                                                                                                                                                                                                                                                                                                                   0; Mismatches 329;
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                                                                                                                                                                                                 38 importment of Agriculture, Agriculture Research Service, Pacific
West Area, Western Regional Research Center
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Walker-Simmons's lab (USDA-ARS, Washington State Univ.,
Fullman, Washington 99164 6420. A CDNA library was made
by Clontech using a combination of random and oligo dr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA preparations and DNA sequencing were performed in the OD Anderson iab (all other authors)."
Anderson.c.L., Chao, S., Han, P.S., Hsia, C.C., Johnson, R.R., Kanq, Y.,
Lab, G.R., Miller, F., Kansell, C.J., Graton, C.L., Tonq, J.C., Verhey,
S.D. and Waiker-Simmons, M.K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         microws ANA (closeriste orid) in 5 mM westoutter, pH 5 to 12 br of 22 C. The tissue, total RNA, and poly(A)
                                                                              The structure and function of the expressed portion of the wheat denomes - AKA-treated embryo library snpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /oultivar "Brevor (soft, white, winter, common wheat)"
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                                                                                                                                                                                                                                                                                                                                                                              Sequence have been trimmed to remove vector sequence and low
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4.7%: Score 70.2; DB-10; Length 648;
Bost Loval Similarity 49.1%: Prod. Ro. 3;
Marches 251; Connerrative 9; Mismatches 248; Indels 12
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                                                                                                                                                                                                                                                                                                                                                                                                   quality sequence with phred score less than 20 seq primer: Cloutech Matchmaker 3' Ab primer.
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//dev_stage="Mature dormant seeds"
/tab_bost="E. coli_DH128"
                                                                                                                                                                                                                                                           See Berhanan Street, Albany, CA 94710, USA
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Determination of this BAT and sequence was carried out as part of a collaboration with the Borkeley brosephila denome Project (BDCD). The BDCP is constructing a physical map of the brosephila melanogaster qenome using these BAPs. For further information
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (02-JUN-1999) Genoscope - Centre National de Sequenciade :
EP 191 (GENG FYEY codox - FRANCE (E mail : sequel quinoscope.chs.th
Web : www.qenoscope.chs.tt)
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pleasestor RW/flyeary was propried by Profroso oscopana and
Adron Mambeser in First and Jona's laboratory in the Department of
Cancer Geories at the Roswell Park Cancer Institute in Bulfalo,
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                                                                                                                                                                                                                                                                                                                                                                             Drosophila melanogaster genome survey sequence 17 end of BAC # BACK14B69 of RPC1 98 library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       filters for hybridization from the BATPAN Resource Center can be found at http://dorpus.med Paffals edu/frasophila_bae.htm.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NY. The library is named RPCI-98 and was constructed by partial Ecoki disestion of prosophila PNA provided by the BDGP from the
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Pferyasta, Roptera, Endopteryasta, Biptera, Brachyeera;
Muscomorpha, Ephydroidea; Drosophilidae; Drosophila.
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Determination of this law end sequence was carried out as part of a collaboration with the European Drosephila Genome Folget (EEGS) this provided by a formal erject (EEGS).
Library (Pros RAC) was made by Alain Billand at CEPH (Centre d'Etude du Polymorphisme Humain) with fruding provided by a MBC project grant The DNA was prepared from entrope by Alain Billand and Geneylove Payan It has been a national in the wests.
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Muscomorpha, Ephydroidea, Drosophilidae, Drosophila,
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/strain="ATCC 3084"
/db_xret-"taxon:10867"
/db_xret-"taxon:108607"
//cb_xret-"faxon:108607"
//cb_xret-"syn. Phredcamocba balamuthi"
son 457 g 243 t 8 others
BM321119 187 03-JAN-2 rockefeller.0.1018 Mastigamoeba balamuthi lambda ZAP 11 Library Mastigamoeba balamuthi cDNA similar to vacuolar AFP synthetase
                                                                                                                                                                                                                                                                                                                                                                                                                                The analysis of 100 genes supports the grouping of three highly divergent amoebae: Eictyostelium, Entamoeba, and Mastigamoeba Proc. Natl. Arad. Sci. U. S. A. 99 (3), 1414-1419 (2002)
                                                                                                                                                                                                                                                                                                                                Bapteste.E., Brinkhann.H., Lee.J.A., Moore.D.V., Sensen,C.W.,
Gordon,P., Farufle.L., Gaasterland,T., Leper,f., Miller,M. and
Philippe.H.
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Mastigamoeba balamuthi
Eukaryota; Pelobiontida; Mastigamoebidae; Mastigamoeba.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Laboratory of Biochemical Parasitology
The Sockefeller University
1235 York Apone, New York, HY 18021, U
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1. .1510
                                                                                                beta-subunit, mRNA sequence.
                                                                                                                         BM321119
BM321119.1 G1:18055525
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/clone_"Zm04_03403"
/clone_lib "Zm04_AAFC_ECORC_cold_stressed_maize_seedlings"
                                                                                                                                                                                       /lissac_type "Lear, crown, cora_stressed_Marze_seedlings" /note="Vector: Blueseript SK /Xhor-Ecokl; Site_1: Bro BL: Site_2: Xho I: Lower temperature 50 C / hour from 22 to 250°; bring to 50 in 1 hour from 12.0°; bring to 50 in 1 hour from 12.0°. Leave at 50° 2 days photoperical 16 hours. Light intensity was 125 uE-1. Library prepared by in vivo mass excision from amplified library."
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Best Local Similarity 43.2%; Pred. No. 9.7;
Matches 309; Conservative II; Mismatches 809; Indels 6; Gaps
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clade; Panicoldeae; Andropogoneae; Zea
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900 Carling Avenue, Bldg. 20, Ottawa, Ontario, KIA 006, Canada
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Expressed Sequence Tags from Cold Strogged Majze Smedlings
Unpublished (2001)
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Fax: (613) 759-1701
Email: singhja@em.agr.ca.
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Determination of this BAC-end sequence was carried out as part of a
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SUMMARIES

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Human immunodeticiency virus type C strain AF110967 Synthetic.

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                                               198 common programment through the application of the common page 1437.
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                                                                               िर्गतः राज्यस्यकरम्पत्रकावस्य स्थितम् । स्वयंक्ष्यक्षयं स्थान् प्रमुरण्यम्बवम् वयंष्रव्यक्ष
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                                                                       Sequence 1479 BP: 325 A, 533 C, 461 G, 166 L, 0 other,
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polypeptides (II) encoded by them, are useful in planmacenticals, various and diagnostic agents. Particularly for treatment or prevention of human immune deficiency visual (HPV) infections, also for rational design of test or therapeutic reagents, or quee therapy vectors. Polypertides, especially antibodies, specifically directed against (II)
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are similarly useful as pharmaceutical and diagnostic agents. (1) are specific for intersubtype C/B' of HIV 1 so are useful in regions (particularly China and South-East Asia) where this subtype is prevalent. The products of the invention have antivity activity. This sequence represents a fragment of the HIV-1 genome described in the method of the
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Assertes. The Sag protein of HV is needed for the assembly of stages of the HIV life particles. In addition, the Gag protein is involved in many stages of the HIV life typic, including assembly, crition maturation after particles release and early post-entry steps in viral replication. The expression cassettes may be used for the removing replication. The configuration and asylated innumber light the resolution and asylated innumber lighter by syndrome (AIDS). The present sequence is a synthetic construct constructed in the generation of the present invariance of the present invariance in that the coding sequences for Bnv and Gag are under the horization in that the coding sequences for Bnv and Gag are under the further a significancy and between the two coding sequences an luternal Hibosome Entry Site (IRES) is present.
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The present invention relates to synthetic HIV Gas and Env expression case-ettes. The data protein of HIV is needed for the assembly of virus-like particles. In addition, the Cas protein is involved in many stages of the HIV life eyele, including assembly, cirion maturation after particle release and early post-entry steps in viral replication. The expression cassettes may be used for the recombinant expression of HIV Gas and Env-polypeptides which may then be used to vaccinate against HIV
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                                                                      AAA70473 standard, inAb; 4608 BP
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Matches 185, Conservative
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HIV 1; AIDS; Gay, Varyine; expression passette; Env. 88 HIV biristronic construct gp160.modHSF162.Gag.modSF2 Chimeric - Human immunodeficiency virus type 1. AAA70471 standard, DNA, 4689 BP. 28 NOV 2600 (first entry) Chimeria - Cytomegalovirus AAA70471; AAA70471

99WO-US31245 WO200039302-A2. 30-DEC-1999; 06-JIII.-2000

Srivastava I. Lian Y. Hartog K. Liu H. C: 980S-0114495. 990S-0168471. Selby M, Walker Sur Megede J. (CHIP) CHIRON CORP 31-DEC-1998; 01 DEC-1998; Burnett S, Greer C, Expression cassettes encoding the human immanodeficiency virus (HIV) can containing polymetral observable for earthough against HIV infections and acquired immunodeficiency syndrome (AIDS) -

WPI; 2000-452400/39

Claim 28; Fig 62; 391pp; English.

The present invention relates to synthetic fit Sag and For expression cassettes. The Gay protein of HTV is needed for the assembly of twins-like particles. In addition, the Gay protein is involved in many stages of the HTV life cycle, including assembly, virion method in many particle release and early post-entry stages in vital replication. The expression areas the may be used for the recombinant expression of HTV Caq- and Env-polypeptides which may then be used to vaccinate against HTV into from and arrapides which may then be used to vaccinate against HTV into from and arrapides which may then be used to vaccinate against HTV into from and arrapides which may then be used to vaccinate against HTV into the arrapide in the generation of the expression cassettes of the present invention. This construct is the bidistroud in that the results sequences for Env and Gay are under the bidistroud of a single TMV product and between the two coding sequences and internal Ribosome Entry Site (IRES) is present.

Sequence 4689 RP, 1629 A; 1666 c. 1367 3: 657 T, 6 other,

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HIV 1, ALLS, Gay, vary har, expression cassetter Env. 88.
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Gag and Envectoreptides which may then be used to vaccinate against HIV infection and acquired immunod-fictency syndrome (AIRS). The present sequence is a synthetic construct constructed in the generation of the stages of the HIV life cycle, including assembly, virion maturation after particle release and carly post-outry stages is viral replication. The expression cassettes may be used for the recombinant expression of HIV The present invention relates to synthetic HIV day and Env expression cassettes. The day protein of HIV is needed for the assembly of

706 gonannagnanntgorayyaginayatikyontggatgannagnaanininingggoragtg 765 | HTHTELLITTELlittellitte expression cassettes of the present invention. This construct is bicistioned in that the coling sequences for Env and Gay are under the control of a single CMV promoter and between the two coding sequences internal Ribusome Entry Sire (TPES) is present. 3773 generommengganotgaanangatgttgaanaongtgggnggnnanggnnatg 3832 । ৪৪৪ - তেনুকা কুণ দুৰ্বত্যুৰ্কুৰ শাৰণ কৰু শোৰত্ত্যুৰ্কুণ শুৰুশ শোধৰণ দুৰ্ব্যুৰণ শোধন ধুৰ্ব্যুৰ্ক শাৰণ শোধনি । 1893. cacgooggenenategeneneggenagatgegegegeeeepegegeageageategesgan 3952 3232 atgggegecegegegeeagegtgetgageggeggegagetggaeaagtgggagaagateege 3292 3353 ctggagogoffogoogfgaacconggeetgetggagaaccagegagggetgeegeeagate 3412 3413 rtgggnnagntgnagnnnagnntgnagannggnagnagngaggagnagngnagngnagnntgtanaan 3472 473 accotygocaecetytaetycytycaecaycycoateyaeyteaayyaeaeeeaayyaysee 3532 3533 otggagagagagggggggggggagcagaacaagtccaagaagaaggcooaggooggoogoo 3592 3593 geogeoggeaenggenanageageeagglyagineagaantanneneleglyeagaantg. 3652 3712 sayyyccayatyytycaccayyccatcayccccycaccctyaacycctyyytyaayyty 121 ctggagggrttrgnnrtgaannngggrtgrtgatggaganngnngagggrtgnaagnagath 180 HHHH HHHHH HHHHH HHHHH 406 ragggovagat gitgravoaggovatvagovovydavovtgaaogootgggtgaaggtg 465 526 geogeococoggaacetgaacacgatgttgaacacogtgageggocacoaggocgcoatg 585 etgegececeggegggggaagaatacatgetgaageacetggtgtgggeeageegegag 120 241 accytygecaecetytaetysytysasyssysettsyayyteeysyskeseesyayyee 300 30] rtgganaagatrgaggaggagragaanaagtroonagnaagaaganonagnaaggoonaaggag 360 466 atogaggagagaaggoottoagoocogaggtgatooooatgttoaoogoootgagogagggo 525 586 ragatgrigaaggararratraargaggaggrigingrigagiggariggariginitgraningtg 645 36; Gaps l atgggcgcccgcgccagcatcctgcgcgcgagaagatggacaagtgggagaagatccgc 60 aki gonganggna-----aggtgagnnagaantannnatngtgnagaantg DB 21; Length 4766; Sequence 4766 HP, 1051 A, 1638 C) 1489 G; 568 T; 0 offler; Indels Score 1201; DB 21; Fred No. 20011; 0; Mismatches 140; 79.58, Similarity 88 58, Matches 1351; Conservative Ouery Match Beat 'Ana' ŝ ď ò DC: ΩŸ qq QU Š 입 8 õ 감 Ω qq δŏ Пb ó ź ŝ q 3 F838388F88888X8 $\stackrel{\wedge}{\circ}$ 3

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99WO-US31245.

30-DEC-1999; 06-JUL-2000

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conding sequence. The Gag protein of HIV is needed for the assembly of virus like prifeles. In addition, the Gag protein is fuvaled in many stages of the HIV life excite, including assembly, virion maturation after particle release and early post-entry stops in viral replication. The present invention relates to synthatic HIV Gag expression cassettes. The present sequence was cloned and used to generate the expression cassettes of the present invention. The expression cassettes may be used for the recombinant expression. HIV Gag pellypeptides which may then be used to
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Pred. No. 4.1e-141;
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The invention relates to synthetic gag and gagpol genes optimized for high level expension (1) orbin optimization. The optimised gards are two used for treatment and prophylaxis of diseases caused by retroviruses as well as efficient generation of vector particles (as parkaging construct for of Raybu Less) various may also be used in the construction of Raybu Less) various modified for improved safety. When used as packaging constructs, the optimised genes exhibit safe and efficient gene delivery and expression of Gag of GagFoi genes; and allows expression of high yields of native protoins in higher expansion or needs or needs or needs expression and gene therapy purposes, unlike the complex particles for vaccination and gene therapy purposes, unlike the complex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oden optimization, for efficient generation of vector particle useful
in gene delivery and for immunizing against diseases of retroviruses
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                                                                                                                                                                                             Sag; qaqpol; pol; codon optimisation; virucide; immunostimulant;
                                                                                              Nucleotide sequence of a synthetic HIV-1 gag coding region
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                                                                                                                                                                                                                                          vaccine; qene therapy; SIV; HIV; ss
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13-MAR-2002 (first entry)
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regulatory mechanisms of lake gag and gappol expression found in the
prior art. The present sequence represents the nucleotide sequence of
                                                                               1411 increse green contrated and additional and additional accordance and additional additional and additional additiona 
                                                                                                                                                                                                                                                                                                                                                Synthetic gag and gagpol genes optimized for high level expression via
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1471 interpretation of the operation of the second second section 1509.
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The present sequence is the coding sequence of a HIV Gay-protease expression essents, Gayers And The Gay protein of HIV is needed for the assembly of virus-like particles. In addition, the Gay protein final involved in rany stages of the HIV life eyels, including assembly, virian maturation after particle release and early post-entry steps in viral replication. The expression easy be used for the recombinant expression of HIV Gay-polypoptides which may then be used to vaccinate
ll4] queaactteannaannaqaqaaqatqqtqaantqnttnaantqnqqnaaggangonan 1200
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                                                                                                                                                                                                                                                                                                      2050 CACCAAATGAAAGAT GTACTGAGAGAGAGGCTAATTTTTTAGGGAAGATCTGGGCTTCC 2109
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                                                                      1012 gerapent gaaggaggatgat gan daa caaqqqagtgaya gan oo gan aagagan
                                                                                                                                                                                                                                                                                                                                                                          LITLE OF INVENTION: NON-PATHAGENIC STRAINS OF HIV-1
NUMBER OF SEQUENCES: 800
CORRESPONDENCE ALORESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patentin Release #1.0, Version #1.25
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                                                                                                                                                                                                                                                                                                                                                                                                                                               US/08/188, 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Learmont, Jenniter C.
APPLICANT: McPhee, Dale A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     p Sequence 1, Application US/08388453
p Patent No. 6010895
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COMPUTER: 18M PC compatible
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NAME: DiGIQ110, Frank S.
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APPLICANT: Cooper, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          United States
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MEDIUM TYPE: Floppy
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Best Local Similarity 65.68: Prod. No. 9 1e-91:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE COUNTY NUMBER 9606
              TELECOMMUNICATION INFORMATION:
                             TELEFAX: (516) 742-4343
TELEFAX: (516) 742-436
TELEX: 230 901 SAMS UR
INPERMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                    LENGIH: 9709 base pairs
                                                                                                                                                                                                                                                                                             Matches 998, Conservative
                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                      nucleic acid
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US-08-388-353-1
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1570 - ΜΕΤΑΤΑΛΑΚΈΝΕΙΘΩΑΙΑΛΙΕΡΕΘΩΩΑ ΕΙΑΛΑΙΑΑΑ ΕΝΤΑΚΑΣΑΛΈΠΑ ΣΙΑΤΑΚΕΓΕΓΙΑΓΟ
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m COO}qoaagtiqoqaagqaa_{
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                                                                                                 1830 AGCATTOLGGACATAAGACAAAGGACCAAAGGACCTIIAGAGACIAIGIAGAACCGA1IC 1889
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                                               2050 CACCAAATGAAAAATTGTACTGAGAGACACACGTAATTTTTAGGGAAGATCTGGCGTTCC
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NUMBER OF SEQUENCES: 841
CORRESPONDENCE ADDRESS:
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SYSTEM. FC DAS/MS-DOS
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. Patent No. 6015661
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APPLICANT: Dale A. McPhee
APPLICANT: David Cooper
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42.6%; Score 642.2; DB 3; Length 9709; 65.6%; Pred. No. 9.1e-91;
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                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 05 00 1 APPLICATION NATION NUMBER: 05 00 1 APPLICATION NATION NATIONAL NATIONAL
                                                                                                                                                                                                      PM 5864 (AU)
                                                                                                                                                                                                                                                                                                              PM4002 (AU)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: PN3021/95
FILLIN TABE: 17 MAY 1995
ATTORNEY/ACHET HEYAMATION:
NAME: FRANK S. DIGIGLIO
REFERENCY/OPERCY HOMBER: 96362
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(516) 742-4366
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                                                                                             FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                             14 - FEB - 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 9709 base pairs
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MRKENI APPLICATION DATA: APPLICATION NUMBER: 03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic acid
                                                                                                                                                                                                      APPLICATION NUMBER:
FILLING DATE: 14 - FE
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                                         F. FROWLY AND NFIMAPK, P. L. L. C. 624 Ninth Street, N.W.
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APPLICATION NUMBER- HS/D*/445, 412
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KEFERENCE/DOCKET NUMBER: CHA
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TELETHONE: 202-737-3528
INFORMATION FOR SEG ID NO: 13:
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                                                                                                                                                              APPLITABLE OF INVENTION: Animal Model For Evaluation Of Vaccines NUMBER OF SEQUENCES: 33
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CAMPUTER: IBM PC COMPATIBLE
OPERATIBE SYSTEM, PC 0-0/MS-FOS
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MolECHIE TYPE: other nucleic acid
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THESTERMALLOW TOR STO, 10 NO: 43,
SEQUENTE CHARACTERISTICS:
Separate v., Application 08/088487608
Patent No. 6248721
GENERAL (NESREALER)
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                                                                                                                                                                                                                                                  APPLICANT: Pawlakis, George N.
APPLICANT: Gaitanaris, George A.
APPLICANT: Stauber, Sauber A.
APPLICANT: Vournakis, John N.
FIRE OF INVENTION: Mutant Aequorea victoria Fluorescent.
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Two Embarcadero Center, 8th Floor
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FILING DATE: No. 6027881 yet assigned
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APPLICAND: Gallandis, George A.
APPLICAND: Standers, Keland B.
APPLICAND: Womrnaks, Matent B.
THIE OF INVENTION: Matent Aequores victoria Fluorescent
TITLE OF INVENTION: Proteins Haring Increased Cellular Fluorescence
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OPENAINS SYSTEM: PCFOSSMS BOS
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THERENI AFFLICATION DAIA:
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CORRECTED TANGEMATERS:
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42.6%; Score 642.2; DB 4; Length 15581; 65.6%; Pred. No. 9.1e-91;

Best Local Similarity

Owery Materia

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241 acceptances estatuectaestas acerceja ateraneir espejas aceaejas aceaajaniste (60) 11 + 11 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 111 + 
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TITLE OF INVENTION: Use of an "immunodeficiency-virus suppressing
TITLE OF INVENTION: Use of an "immunodeficiency-virus suppressing
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TITLE OF INVENTION: Viruses, Farticularly of retroviruses
CURRENT APPLICATION NUMBER: US/08/244,440
CURRENT FILING DATE: 1997-10-06
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EARLIER FILING DATE: 1995-08-18
EARLIER APPLICATION NUMBER: DE 195-13-152.5
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                       : Sequence 7, Application US/08944449
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NUMBER OF SEG ID NOS: 8
SOFTWARE: Patentin Ver. 2.0
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APPLICATION NUMBER: US/08/463.210
FILING DATE: 05 JUN-1995
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CAMPUTER: IMM FC compatible
OPERATING SYSTEM: FC-0.05/MS DOS
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APPLICANT: CALLO, Pobert C.
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MUSTER, Thomas
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AFFLYANT: CHANG, MESTY F.
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OTHER INFORMATION: Znote "Corresponds to nucleotide positions 222 to OTHER INFORMATION: 9154 in figure 3 of EP 85307260"
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64.8%; Prod. No. 4.1e-89;
dive 0; Mismatches 511; indels 40; Caps
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PEPERENCE, 2026-419 01S2
TELECOMMUNICATION INFORMATION:
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LOCATION: 113..1648
OTHER INFORMATION: Zproduct:
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                                                                                                                                                          TELEPHONE: (212) 758-4800
TELEFAX: (212) 751-6849
INFORMATION FOR SEQ ID NO: 4:
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Serunian, Loslie A.
                                                                                                                                                                                                                                                                                                                             LENGTH: 8934 base pairs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 41.8%; Score 631.4; DB 4; Length 8933; Post Local Similarity 55.2%; Fred. No. 4.1e-89; Matches 849; Conservative 149; Mismatches 511; Indels 30;
                                                                                                                                                                                                                                        TITLE OF INVENTION: POLYNUCLEOTIDE AMPLIFICATION METHOD FILE REFERENCE: 08104-02.UT FULL FRIENCE: 0.7A:: N. ENPHEL - 08.775, (20.958A CURRENT FILLING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 9 SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Human Immunodeficiency Virus
                                                                                                                                           . Sequence 3, Application 78/09620958A ; Patent No. 6294338
                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Nunomura, Kiyotada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. 6294338
CHER INFORMATION: plasmid.
US-09-620-958A-3
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OTHER INFORMATION: Sequence of the IAC Asic pseudo target

..(4155)

NAME/KEY: mutation LOCATION: (4135). Patent No. 6294348

ORGANISM: Artiticial Sequence

8933

LENGTH:

SEQ ID NO 4 TYPE: KNA FEATURE:

CURRENT PILLING DATE: 2000 07:21
NUMBER OF SEQ. ID NOS: 9 SOFTWARE: FastSEQ for Windows Version 3.0

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Best Local Similarity 55.2%; Pred. No. 4.1e-89;
OTHER INFORMATION: Mutated positions: 4135, 4140-1, 4145, 4150, OTHER INFORMATION: 4152-3, 4155
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FIGE OF INVENTION: POLYNOCLEOFUDE AMPLIFICATION METHOD FIGE REFERENCE; GP104-02.07

Williamiara, Kiyatada

r September 4, Application US/09520958A referr No. 6294338

PESSULE 14 US 03-620-958A-4

GENERAL INFORMATION:

APPLICANT.

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                        772 atotanaagngqtqqatnatnortgggcdtgaanaaqatoqtgcggatgtacaqocccgtg 831
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GENERAL INFORMATION:
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SUMMARIES

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Increased expression and imminogenicity of sequence-modified human
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Submitted (12-III-2000) Chomical Dathology, Women's and Children's
Hospital, 72 King William Road, North Adelaide, SA 5006, Australia
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/note="sequence with optimized codons"
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Patent, Wo 2188141 A 2 22:NOV-2061.
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/transl_table=11
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/db.xrf="cl."1066865"
/tax.11'... "MGABASVISAGTTRWMFIBLEFTAREGYSTRHVWAPPTLEPF
AVDPGLLETSERCROIIGOLOPSLATGSELRSLYMYATLYCVHQKTEVKDYKEALE
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HAGPIAFGQMFFPFGSEJAGTTSTI ĢFQIGWMTNNPPJIPVGFTYREWITIGINKIVEM
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KALGPAATTEEMMTAGGGGGGGGGGGHKAAVLAEAMSJVINSATIMMGAGNEPMGFKTVKO
FNGGKFGHTAKNGPAPFKKGGWKGGKEGFGMKDGFPPQANFLPFDIAFDGKAPFFSS
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EALLDTGADDTVLEEMNLPGFWKPKMTGSTGGPTKVPQYPQTPTFTGGHKATGTVLVG
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TPKPKLPIQKETWETWWTEYWQATWIPEWEFVNTPPLYKLWYQLEKBPIIGABTFYYD
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LPLDGIEKAQFEHTKYHSUWRAMARGENI PEVVAKETVASCHROGHRGENGSVEGS
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TAVQMAVETHNEKRRGGTGGGYSAGEPTVDTTATDTGTRELQKGTFKTGNPPVYYPRSP
DPLAKGPAKLLWRGEGAVVTQTNSGTRVVPPFRKAKTTPTVGKQMAGTGCVAGEGDEP."
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                                                                                     Submitted (12-JUL-2000) Chemical Pathology, Women's and Children's
                                                                                                                 72 King William Kond, North Adrialdo, SA Sóób, Australia
Location/Qualifiers
                                                                                                                                                                                                 /organism="synthetic construct"
/db xref="taxon 32630"
/note "derived from Human immanuabeficiency virus type lisolate YU-2"
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Pred No 1 56-95;
0; Mismatches 168; Indels 12; Gaps
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/motes="codom optimized reading frame"
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Fuller,M. and Anson,D.S.
Direct Submission
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86.48;
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HIGMEDICA LID (CB); KIM NARRY (KR)
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Miltophanous,K., Aingsman,A.J. and Alm,N.
Anti-ofral vectors

Patent: Wo 9941397 A 2 19 AUG 1999;
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